

MAJOR FUNCTION

This is technical work in civil engineering and land surveying performed in the field. Assignments are performed with independence, performed under general supervision, and are subject to review by an employee of a higher level during progress and upon completion through oral and written reports and by observation.

ESSENTIAL AND OTHER IMPORTANT JOB DUTIES**Essential Duties**

Performs surveying duties under the direction of the Survey Party Chief. Sets up and operates survey equipment to locate lines, points, and angles to establish the relationships of surface features with each other by angles, elevations, and distances. Sets up, adjusts, calibrates and operates surveyors level to secure or establish elevations and points above a given datum plane. Uses hand level for rough leveling work and slope staking as required. Sets up and operates electronic distanced measuring devices to measure distances and establish lines and points. Directs the maintenance of survey equipment and vehicles by survey crew. Clears brush and other obstructions. Locates and digs for survey monuments, reference points and underground utilities. Removes manhole covers and enters sanitary and storm drain manholes to determine pipe sizes, locations, and invert depths. Cleans and maintains survey equipment and tools. May provide instruction and oversight in the operation of surveying instruments to lower-level positions. May erect barricades, traffic control devices and various safety apparatus on worksite. May perform entrant and attendant work in utility construction, confined spaces, excavations and trenching. May enter utility structures determined to be safe, including but not limited to manholes, pipe trenches, vaults, and box culverts to perform tasks. Performs related work as required.

Other Important Duties

May prepare and record survey field data. May direct the work of survey crew members, in the absence of the party chief, in performing field work. Performs related work as required.

DESIRABLE QUALIFICATIONS**Knowledge, Abilities and Skills**

Considerable knowledge of the terminology, methods, practices, and techniques of land surveying and civil engineering. Considerable knowledge of bearings, azimuths, and angles. Knowledge of mathematics, trigonometry and geometry as applied to the use of the basic principles of land surveying, particularly as applied to road and utility work. Knowledge of the use of basic and routine surveying formulae for simple surveying and calculations. Knowledge of the principles, materials and methods of road and underground utility construction. Knowledge of the basic principles of land surveying as related to construction. Knowledge of field note keeping. Knowledge of occupational hazards and accident prevention methods in assigned area of responsibility. Ability to make routine land surveying computations. Ability to interpret field notes. Ability to operate, adjust, maintain and make minor repairs to survey equipment. Ability to perform precise survey work and to record and reduce field data. Ability to assign and coordinate the work of a small survey crew. Ability to convert and perform computations involving bearings, azimuths and angles. Ability to read and interpret engineering plans and specifications. Ability to understand and follow complex oral and written instructions. Ability to keep coherent records and make reports. Ability to follow oral and written instructions without immediate supervision. Ability to safely perform heavy lifting, pushing, pulling, climbing, standing, and squatting for long periods of time. Ability to work in an environment that may include extreme heat and confined areas, hazardous conditions, noxious chemicals, and exposure to prolonged high noise levels requiring the use of personal protective equipment. Ability to perform tasks outdoors under varying climatic conditions. Skills in the use of tools and equipment used in daily survey operation. Skills in the care and use of survey equipment and instruments.

Minimum Training and Experience

Possession of a high school diploma or an equivalent recognized certificate and four years of technical survey experience.

Necessary Special Requirements

Must possess a valid Class E State driver's license at the time of appointment.

Must possess certifications (or can document acceptable training) in Maintenance of Traffic (Intermediate Level), Confined Space, Excavation and Trenching, OSHA 10-Hour Health and Safety in construction certification and National Incident Management System.

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